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Y-12 PLANT SUPERINTENDENT J. M. Case views some of the Apollo 11 hardware with **George Lockhart**, center, and **Paul Wilkinson**, left. Lockhart was in Mission Control, Houston, for the moon-shot; Wilkinson in New York for appearances on national television. The moon rock-box and some of the other items on the flight were designed and fabricated in Y-12.

Apollo Moon Shot Is Particularly Exciting To Wilkinson, Lockhart

Y-12ers glued to their television sets during the Apollo 11 flight were surprised to see a fellow plantman appearing on national television during the in-between comments made by newsmen. Paul Wilkinson, on loan to Product Engineering, made appearances on major television and radio networks Sunday, July 21.

He was interviewed live by Peter Hackes, NBC newsmen, at approximately 9 p.m. The interview involved Y-12's participation in the design and construction of the moon rock-box. Wilkinson explained to Hackes and the television audience just exactly how the storage apparatus worked and why a near-absolute vacuum was needed.

Footage on the moon box also appeared on CBS-TV. Wilkinson also taped an interview which was played over ABC radio network.

Last week Wilkinson again appeared locally on WTVK-TV, Channel 26 last week giving a quick run-down of the plant's involvement in the space program.

Another Y-12er got exciting behind-the-scenes glimpses of the space program as George Lockhart, Product Engineering, spent some time at Mission Control, Houston, Texas.

As a matter of fact, Lockhart was in MC when the actual moon walk started. His mission: to be ready to assist Armstrong and Aldrin by voice instruction if something went wrong with the contingency sample-loader and the rock-box. Fortunately, his services were not needed as the Y-12-made products functioned perfectly.

The excitement generated at NASA during the moon flight was contagious, according to Lockhart. "You couldn't help share the emotion that was super-charged during the whole business," he stated. "I particularly enjoyed sharing the experience with geologists there," he said. "They were most eager for the astronauts to collect the samples from the moon's surface."

Lockhart said NASA officials were most generous with their praise and thanks for the smooth functioning products that our plant had furnished.

Voice contact . . . the same that the public got involved with on television . . . was amplified to be heard throughout the entire Mission Control complex. "It was difficult to imagine that the astronauts were a quarter of a million miles away," Lockhart said.

The involvement of Wilkinson and Lockhart certainly made the Apollo 11 flight a little more personal for all of us.

Belgium's Assche Is Physics Seminar Guest

This week's Physics Division seminar will feature P. Van Assche, Centre De-Etude de L'Energie Nucleaire, Mol-Donk, Belgium. His subject will be "The Study of the $^{55}\text{Mn}(\text{n},\gamma)^{56}\text{Mn}$ Reaction with a Bent Crystal Gamma-Diffraction Spectrometer."

The seminar is scheduled for Friday, August 8, at 3:15 p.m. in the East Auditorium of ORNL's 4500 building.

Union Carbide Sales, Earnings Up 2nd Quarter

Sales and earnings of Union Carbide Corporation in both the second quarter and the first half of 1969 substantially exceeded those reported in 1968, according to an announcement from Birny Mason Jr., chairman of the board.

Sales in the second quarter amounted to \$733 million, an increase of 11 per cent over second-quarter 1968 sales of \$661 million, and eight per cent above sales in the first quarter of 1969. Earnings for the second period were \$50.2 million, or 83 cents a share. This was an increase of 25 per cent over the \$40.2 million, or 66 cents a share, earned in the 1968 second quarter. In the first quarter of 1969, earnings were 84 cents a share, which included a nonrecurring gain of nine cents a share resulting from the sale of Neisler Laboratories, Inc.

For the first six months, sales totaled \$1,414 million, up 10 per cent from the corresponding 1968 figure of \$1,290.3 million. Earnings rose 26 per cent to \$101 million, or \$1.67 a share. This compares with \$80 million, or \$1.32 a share, earned in the first half of last year.

Mason cited as major factors contributing to the sales gains continued strength in customer demand, firmer selling prices in certain product lines, and a high level of business overseas, particularly in western Europe. As was the case in the first quarter, sales of consumer and related products were exceptionally strong. Mason noted that sales of carbon products had also shown an increase and were running at a higher level than expected, in part as a result of the high rate of production in the steel industry. Sales in other product lines were about as anticipated. He also mentioned that substantial improvement in operations at the corporation's large new chemicals complex at Taft, Louisiana, has been achieved, and this favorable trend is expected to continue.

AIC Seeking Retired Chemists In Area

Are you a retired chemist wishing to keep your feet wet in the business? The American Institute of Chemists is actively seeking the addresses of all retired chemists in this area to promote interest in meetings and what-have-you.

Just contact Walter E. Clark, 386 East Drive, Oak Ridge, Tennessee 37830.

SAFETY SCOREBOARD

The Y-12 Plant Has
Operated
254 Days Or
8,207,000 Man-Hours
(Unofficial Estimate)
Through August 3
Without A Disabling Injury
SAFETY AT HOME,
AT WORK, AT PLAY



DISTINGUISHED SAFETY Performance Award . . . J. M. Case, Y-12 Plant Superintendent, receives the Union Carbide Distinguished Safety Performance Award from **Roger F. Hibbs**, right, president of the Nuclear Division. The award was presented in recognition of Y-12's working a total of 7.7 million hours without a disabling injury.

Y-12 Honored For Safety Records Set During 1968

Safety awards for outstanding performance have been presented to the three Oak Ridge facilities, operated by Union Carbide Corporation's Nuclear Division. The awards, presented on Thursday, July 24, were for a total of 24.1 million man-hours worked in 1968 with only three disabling injuries.

The accident frequency rate for the three plants was 0.12 the lowest in the more than 20 years Union Carbide has operated the facilities.

All three plants had outstanding records. **Y-12 achieved the lowest frequency rate (0.18) in its history and totaled 7.7 million man-hours without a disabling injury.** This year promises to be another sterling year as far as safety records are concerned. Last week, the plant slipped by the 8 million man-hour mark! **8 million man-hours without a lost-time injury!**

Oak Ridge National Laboratory established an accident-free period last year of 5.9 million man-hours without a disabling injury. Oak Ridge Gaseous Diffusion Plant's achievement was its best in history . . . a full year was worked without a disabling injury, for a total of 5.5 million accident-free hours.

Principal speaker at the presentation ceremonies was Roger F. Hibbs, president of the Nuclear Division, who also presented National Safety Council awards to each of the three facilities. Hibbs pointed out that the record could not have been achieved without the full cooperation of all employees. "No safety program can be successful unless it has the full

support of every employee. These awards are in recognition of the effort of each and every employee who, by exemplary performance, have established the best record in the history of the Nuclear Division," Hibbs stated.

E. A. Wende, deputy director of the Atomic Energy Commission's Oak Ridge Operations, presented AEC awards to each of the facilities.

Union Carbide Corporation awards were presented by R. T. Bradley, safety director for the corporation.

Y-12's three plaques have been mounted on one giant display and will tour the plant. Y-12 Plant Superintendent J. M. Case emphasized last week that since these awards were earned by each Y-12er, they should be given the opportunity to see them and take genuine pride in each of them.

So be it. Let's keep the green lights burning at each portal . . . and make 1969 an even better year safety-wise than last year's record-breaker!

50¢ Dividend Is Declared By Board

The board of directors of Union Carbide Corporation has declared a quarterly dividend of fifty cents (50¢) a share on the outstanding capital stock of the corporation payable September 2, 1969, to stockholders of record at the close of business on August 8.

The last quarterly dividend was fifty cents a share paid June 2, 1969.

Happy Birthday, Dear Bulletin!

With this issue, The Bulletin enters its 26th year of publication. 25 years ago yesterday, August 5, 1944 the first edition of the paper appeared for Y-12 employees.

Although our volume number shows Volume 23, it in reality should read 26 . . . when Union Carbide Corporation assumed op-

erations here in 1947, volume one reappeared for The Bulletin.

Then, as now, the paper belongs to its employees. It is published for their information, education and entertainment.

May we be around another 25 years at least!

The Bulletin

Published Weekly For The
Y-12 Employees Of
UNION CARBIDE
CORPORATION



NUCLEAR DIVISION

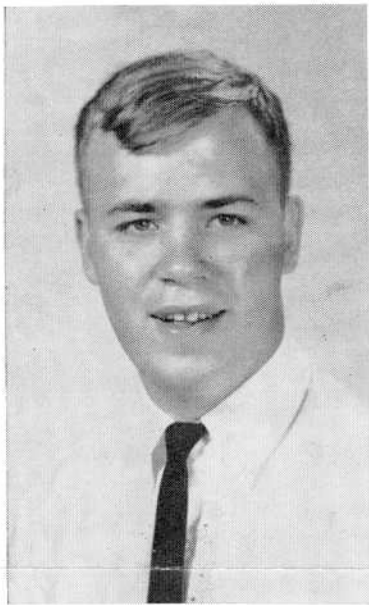
JAMES A. YOUNG Editor

Member Appalachian
Industrial
Editor's
Association

American Association Industrial Editors

OFFICE
Post Office Box Y
Oak Ridge, Tenn. 37830
Telephone 3-7100

Hutton Son Is Minority Whip



John Hutton

John Hutton, son of Mr. and Mrs. John L. Hutton, 106 East Price Road, Oak Ridge, is home working with the Oak Ridge Associated Universities for the summer.

Young Hutton, a student at Indiana University, was elected the minority whip in the University's model of the U.S. Senate recently. He will be a senior when he returns in September, getting his four-year college degree in three. A political science major, Hutton plans to take his degree in three years, and go on for his PhD with ultimate plans to teach at the college level.

The Huttons have a daughter, Barbara, a junior at Oak Ridge High School.

John is over Y-12's Wage Standards.

Fraas, Postma, Marcus Thermonuclear Speakers

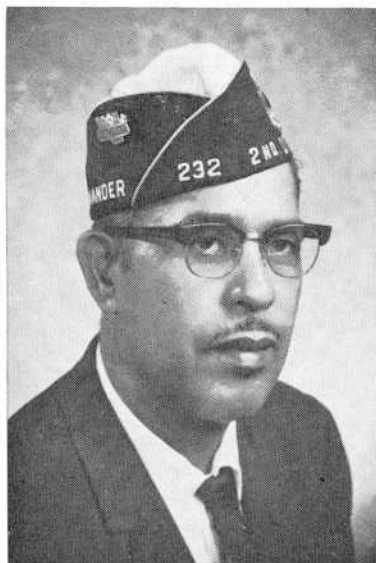
This week's Thermonuclear Division seminar is announced with three speakers. A. P. Fraas, Reactor Division, will discuss "Fusion from D-T Pellets — BLASCON." Herman Postma will speak on "Laser Ignition of D-T Pellets," and Frederick B. Marcus, graduate student from MIT, will speak on "Effects of Fuel Burnup and Synchrotron Radiation in Fusion Reactors."

The seminar is set for tomorrow, Thursday, August 7, at 9:30 a.m. in the TD Conference Room, Building 9201-2.

MOON ENERGY

Two ounces of radioactive plutonium heat the 100-pound seismic device Apollo II astronauts left on the moon where temperatures drop to as low as 250 degrees below zero.

Legion Names Y-12er District Commander



Jess Johnson

Johnson Serves Over Many Posts

Congratulations to Area Five Maintenance employee, Jesse Johnson.

Johnson was named District Commander of the Second District for the American Legion, at their state convention, held July 4-6, at Chattanooga's Hotel Patten.

District II includes posts at Knoxville, Maryville, Jellico, Rockwood, Harriman, LaFollette, Madisonville, Lenoir City, Sevierville, Sweetwater, Kingston, Oliver Springs, Jefferson City, Loudon, Holston, Fountain City, Oneida, Wartburg. Also, Elk Valley, Clinton, Oak Ridge, White Pine, Gatlinburg, Lake City, Maynardville, Sweetwater, and Tellico Plains . . . and covers about 7,300 Legionnaires.

Cmdr. Johnson succeeds Ralph Reel who was elevated to department vice commander at the state meet.

Johnson served in the U.S. Army during World War II, seeing action in North Africa and Italy. He was wounded in action in the Italian theatre. He is commander of Post 232 at Harriman.

The Y-12er lives at Route 3, Harriman.

ALL THAT IT TAKES

If you have half a mind to watch TV, that's all it takes!

Lutherans Plan 2nd Art Festival

When the Oak Ridge Arts Festival is held this Fall, last year's 'bold new venture' by one local church will be repeated as a featured event. The pioneering idea of a Religious Arts Festival, sponsored by the congregation of Grace Lutheran Church, grew over many months time and culminated in an open show in the church fellowship hall last October during the 1968 Oak Ridge Arts Festival.

Encouraged by the response of last year (85 entries from 49 artists and a conservative estimate of 500 viewers) the congregation is announcing the 1969 Religious Arts Festival. The show will again be a part of the Oak Ridge Arts Festival; and the committee, headed by Ed Struxness, is hard at work on plans for the open show scheduled for Friday, October 24 through Monday, October 27.

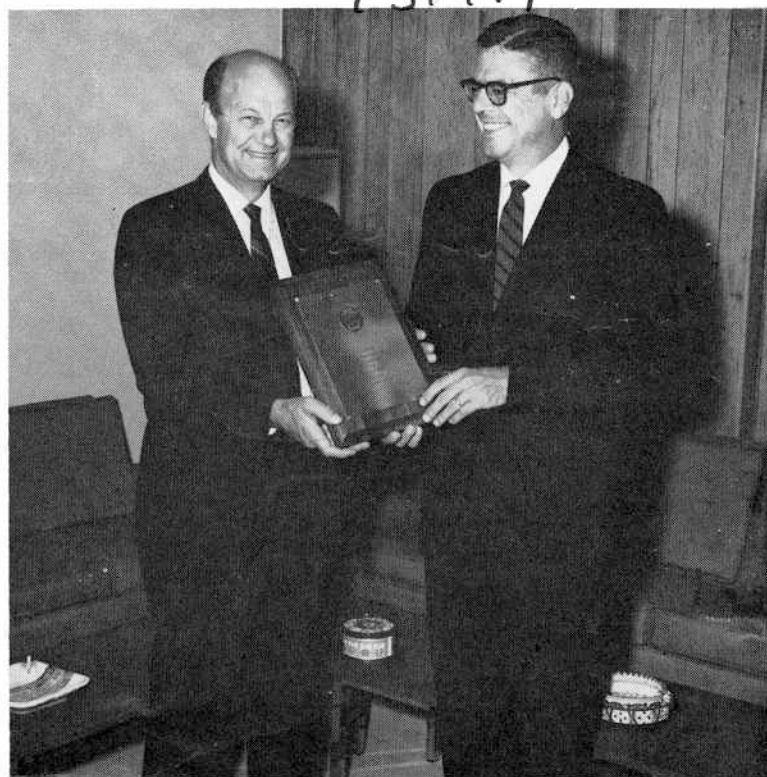
Through this show the church hopes to stimulate use of visual arts for devotion, instruction, and worship and to renew the concept that art and religion form a valuable partnership since art interprets life and religion is involved with all of life.

Area artists and craftsmen are invited to submit original creative work of religious expression or social significance in a variety of media including painting, drawing, graphics, sculpture, photography, needlecraft, batik, jewelry and enamels. Special children's categories by age groups, eight through 11 years, 12 through 14, 15 through 18 are again planned for this year. A best of show purchase award is offered to the artist for the purchase of his work. Other awards will be first, second, and third place award in each classification and in the three youth categories, and a viewers' favorite certification of merit.

Further details will be announced as the committee completes plans. Inquiries may now be directed to Struxness, Mrs. C. L. Hagaman Jr., or the Grace Lutheran Church office, Oak Ridge.

DIAMOND EXPERT

Any baseball team could use a man who plays all positions well, is an excellent umpire, makes no errors; but there's no way to make him put his beer down and come out of the stadium!



BOOST FOR OAK RIDGE BOYS' CLUB . . . Robert Lyle, president of the Oak Ridge Boys' Club, presents a plaque to Roger F. Hibbs, president of Union Carbide Corporation's Nuclear Division, in appreciation for the corporation's \$3,000 contribution to the Boys' Club building fund. The plaque reads: "Presented to Union Carbide Corporation Nuclear Division for Service to Boys."

Union Carbide Contribution Boosts Boys' Club Drive For \$75,000 Here

A \$3,000 contribution to the Oak Ridge Boys' Club has been received from Union Carbide Corporation, according to an announcement from Robert Lyle, president of the local Boys' Club.

"On behalf of the Boys' Club, I wish to express our keen appreciation for the generous support we are receiving from Carbide and the hundreds of its employees who are contributing to this worthy cause," Lyle said.

The Boys' Club, which serves approximately 1,100 boys in one or more of its programs, needs additional space if it is to serve adequately the needs of its present and projected membership. Membership in the club has been growing at an ever-increasing pace, and Lyle estimates that by 1970, the club will have around 1,500 members.

The goal of the fund drive is \$75,000. Approximately \$11,000 is still needed if the drive is to be a

success. "We are confident that, with some additional hard work, we will meet our goal in the near future," Lyle said.

He explained that the primary purpose of the Boys' Club is to build character. Membership is open to all boys between the ages of seven and 18. The program of the Boys' Club includes football, basketball, baseball, track, tennis, arts and crafts, model airplane building, small motors, coin collecting, boys' chorus and boy counseling. All activities are supervised by adults.

REVERSE ORDER

The guy who framed his first dollar 30 years ago in a 10 cent frame finds today that his frame is worth a dollar and the dollar is worth 10 cents!

BRAT DEFINITION

A brat is a child who acts just like your own youngsters . . . but lives up the street!



TRAINING AND TECHNOLOGY Project's Inservice Program for teachers included the above teachers from 16 states. They participated in the Institute in Y-12 from July 14

through August 1. Each teacher participated in a six quarter-hour course in industrial education. Approximately 30 teachers participated in the program.

12 Deadly Sins Listed For Boaters

By L. L. Burnette

L. Leslie Burnette, USCGA, Flotilla 12-2, Division XII, Greenback, Tennessee has come up with what he calls the 12 Deadly Sins of Boating.

They are:

LACK OF PREPARATION: Not enough fuel for trip, inadequate life preservers, fire extinguisher, safe boating education, etc.

OVERPOWERING YOUR BOAT: Every boat is designed to take only so much speed and power in turns and stops, and hull materials.

FAILURE TO LET PEOPLE KNOW WHERE YOU ARE GOING: If you don't return when expected no one will know which direction to come looking for you.

NOT TAKING PROPER FIRE PRECAUTIONS: Smoking while refueling, not venting bilges after refueling to prevent explosions.

GOING OUT IN AN UNDER-EQUIPPED BOAT: No anchor, paddle, extra line, pump or bailer, fire extinguisher, tools, spare parts, first aid kit, running lights, proper life jackets.

NOT KNOWING YOUR POSITION: Especially on large bodies of water.

NOT KNOWING THE RULES OF THE ROAD: Who has the right of way . . . how to navigate waterways, or around other crafts, day or night. Emergency procedures to prevent collision. (Contact your local Coast Guard Auxiliary, Power Squadrons, National Outboard Association for details.)

IGNORING THE WEATHER: Boats are a prime target for lightning, and are more difficult to handle in rough winds and currents.

OVERLOADING: Know how many passengers your boat will carry **SAFELY**.

SITTING ON GUNNELS or STANDING WHILE UNDERWAY: Persons can be thrown overboard and run over easily before anything can be done about it.

SPEEDING OR MANEUVERING RECKLESSLY: Especially in or around swimming areas, pulling skiers into banks or too close to banks.

NOT USING COMMON SENSE: Watch where you are going, especially when towing skiers. **DON'T MIX BOOZE WITH PROPS** . . . Keep a cool head . . . and watch out for the other fellow.

Remember, a boat has no brakes and cannot be stopped on a dime. Respect the winds and the currents. The life you save may be your own . . . in or out of a boat!

Burnette is in Y-12's Fire Department.

Goss-Stanton SW Point Leaders, Yet

Goss-Stanton expanded their lead in the Southwest Point Golf League last week by taking a big five-point win from Argo-Groppe.

Bolt-Bush put Mee-Wright down for four . . . and Jones-Morgan took four from Smith-Henderson.

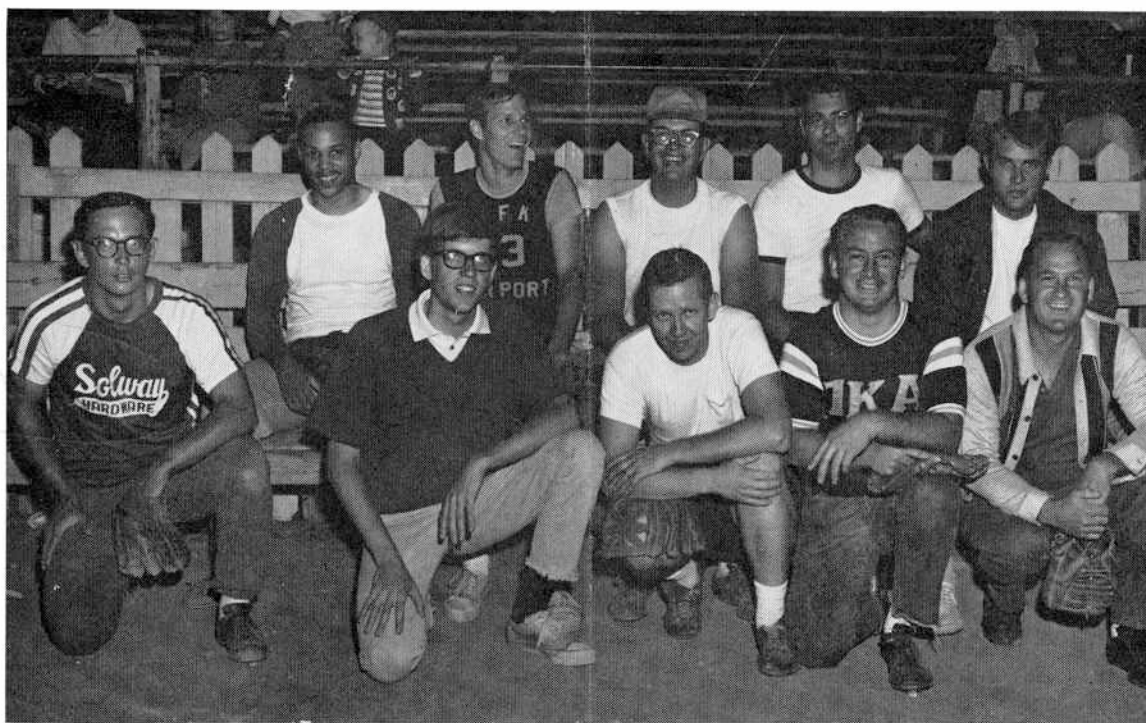
League standings follow:

Team	W	L
Case-Allmon	51	12
Durham-Harness	41	22
Reed-Stephens	40	23
Wyatt-Wagner	32	31
Raper-Luckett	31	32
Gray-Copeland	30	33
Helms-Fowler	22	41
Nichols-Norris	5	58

EXPERIENCE UNNECESSARY

'You certainly are asking a lot of money for someone with no experience,' the personnel manager told the young applicant.

'Well, sir, it's like this . . . it's harder to do something when you don't know what you're doing!' replied the young man.



Y-12's SNAKES, higher than their name indicates in standings, are a threat in the Softball League to all comers. In the front row, from left, are Jerry Harris, Bud Leete, Loyd Wyatt, Phil Mason and Bill Maddux. In the rear are Horace Moorman, Manager Earl Nall, Bob Cul-ton, Jim Batch and Dave Alspaugh.

Recreation



Monday, August 11

SOFTBALL LEAGUE: 6:15, 7:30, 8:45 p.m. Pinewood Park. Braves vs. K-25 Gashouse Gang; Eagles vs. 69ers; Bat Boys vs. Beta 4 Astros.

VOLLEYBALL: 7 p.m. Informal play. New Jefferson Junior High School Courts.

Tuesday, August 12

SOFTBALL LEAGUE: 6:15, 7:30, 8:45 p.m. Pinewood Park. All Stars vs. Big Shops; Yankees vs. A-Wingers; J-Birds vs. Show Ups.

PHYSICAL FITNESS (For Men): 7:30 p.m. Oak Ridge High School Gym.

WHITTLES GOLF LEAGUE: After Work, Whittle Springs Golf Course, Knoxville.

Wednesday, August 13

MELTON HILL GOLF LEAGUE: After Work, Melton Hill Golf Course, Clinton.

VOLLEYBALL: 7 p.m. New Jefferson Junior High School Courts. Informal Play.

Thursday, August 14

SOUTHWEST POINT GOLF LEAGUE: After Work, Southwest Point Golf Course, Kingston.

SOFTBALL LEAGUE: 6:15, 7:30, 8:45 p.m. Pinewood Park. Go Go Gophers vs. Buccaneers; Y-12 Snakes vs. Colts; NC Squad vs. Beta 2 Miners.

PHYSICAL FITNESS (For Men): 7:30 p.m. Oak Ridge High School Gym.

HORSESHOE LEAGUE: 7 p.m. City Courts, Jackson Square.

Coming August 23

GOLF TOURNAMENT: At Whittle Springs, Knoxville.

Case-Allmon Win H'Shoe 1st Half

Case-Allmon took the first half of the Horseshoe Pitching League last week after an eight-point win over Raper-Luckett.

Seven points were picked up by Reed-Stephens over Nichols-Norris, and Wyatt-Wagner over Helms-Fowler.

Durham-Harness won five from Gray-Copeland.

Team	W	L
Ball-Leach	20	4
Cowen-O'Neal	11	7
Tharp-Hensley	10	8
Poe-True	10	14
Holland-Wilson	8	10
Norris-Smeltzer	8	10
Troutman-Chitwood	5	19

Snakes Stay Up There In Softball Action, Downing 69ers 13 To 11

Softball action began last week with no action . . . as the Eagles earned forfeit past the A-Wingers.

Beta 2 Miners hit the win column with a bang Monday, however, downing the Show-Ups 23 to 11. Larry Underdown and Jack Davis poled long homers . . . and Bob Birdwhistle tripled to help the winning cause.

The All Stars blanked the Buccaneers in Monday's final game . . . five to 0. Hits were evenly distributed . . . eight each.

Dick Graham and Iver Jeter socked four-baggers for the winners.

Yanks Are Blanked

Tuesday saw the K-25 Colts completely overshadow the Y-12 Yankees 23 to 0. John Keith, Sam Woodfin and Ted Hatcher all had homers for the down-the-road team.

The NC Squad took an easy win by the forfeit route from the Beta 4 Astros Tuesday.

Y-12's Snakes eased by the 69ers 13 to 11 in a good one . . . as Earl Nall clipped off a triple and a homer to help his team along.

Ron Norris poled a four-bagger for the losing 69ers.

Thursday pitted the Gashouse Gang against the Go Go Gophers (how's that for alliteration?) . . . the Gang winning 15 to 6.

Wayne Langenburg hit two homers . . . Jim Medlin, Bruce Marshall and Wes Hightower all hit one apiece.

Final action saw the J-Birds, also from K-25, put the Y-12 Bat Boys down fiercely 19 to 4.

Ralph Horn hooked a homer for the losing Boys.

League standings follow:

Team	W	L
Braves	12	0
Snakes	12	1
Colts, K-25	12	2
Eagles	11	2
All Stars	9	4
K-25 Gashouse Gang	9	4
69ers	8	5
J-Birds, K-25	8	5
Buccaneers	7	6
Yankees	6	7
NC Squad	6	7
Big Shops	4	8
Go Go Gophers	4	9
Show-Ups	3	10
A-Wingers	3	11
Bat Boys	2	11
Beta 2 Miners	1	14
Beta 4 Astros	0	14

TO A FINE TUNE

It is estimated that our population increases by one every 10.5 seconds. We can't control the population explosion, but it's good to know that at least we have timed it.

NO DISCRIMINATION

A man walked into a restaurant and asked, "Do you serve crabs?" The waitress replied, "Sure, we serve anyone . . . just have a seat!"

Tee-Off Time Application For Whittle Springs Golf Tournament

Saturday, August 23

Foursome

_____, Leader

Leader's office phone _____

Home phone _____

Tee-off Time Preferred _____

Fill out completely and return to the Recreation Office, Building 9711-5. Deadline for entering is 4:30 p.m. Wednesday, August 20. Tee-off times will be drawn the next day, Thursday, August 21 at 8:30 a.m.

2 Teams Move Up On Melton Greens

Two teams in the Melton Hill Golf League took big wins to inch up in standings . . . the Wright-Butler team put the Ellis-Pryson duo down . . . and Riggs-McElroy took the Wyrick-Sherrod pair out of commission. Clabough-Tiller also downed Roberts-Cook for the full count . . . and Ferguson-Winstead took Tuck-Wetzel to the cleaners.

Posting five were Baker-Babb gaining from Butler-Waldrop . . . and the Sewells got five from Graham-Bell. Taking four were Nixdorf-Holdaway over Parrott-Parker.

A. C. Wright and John Baker scored 39 lows . . . and R. Holdaway tallied a 35 handicap score.

League standings follow:

Team	W	L
Baker-Babb	47	19
Wright-Butler	45	21
Riggs-McElroy	44	22
Tuck-Wetzel	41	25
Parrott-Parker	41	25
Clabough-Tiller	40	26
Phillips-Alvey	35	31
Gresham-Bell	33	33
Stinnett-Ladd	32	28
Dunaway-Wright	32	34
Sewell-Sewell	32	34
Ferguson-Winstead	32	34
Sherrod-Wyrick	29	37
Nixdorf-Holdaway	28	38
Ellis-Pryson	26	40
Butler-Waldrop	20	46
Morehead-Poly	20	40
Roberts-Cook	11	55

Ball-Leach Take Good Whittle Lead

The Ball-Leach team command a rather substantial lead in the Whittle Springs Golf League, after a four-point win over True and Poe.

Tharp-Hensley posted four over Norris-Smeltzer . . . and the Cowen-O'Neal . . . Troutman-Chitwood duel ended in a draw . . . both teams sharing three.

Allen True scored a 40 for the week's low scratch score . . . and his and Cecil Chitwood's 36 were handicap lows.

True and Al Sawyer saw five pars apiece.

League standings follow:

Team	W	L
Goss-Stanton	47	19
Jones-Morgan	39	27
Smith-Henderson	37	29
Bolt-Bush	31	35
Mee-Wright	29	37
Argo-Groppe	15	51



Would like to form car pool from Newton Lane, Newridge, Nebraska area, Oak Ridge, to North or Central Portal, straight day. Kelly Dagenhart, plant phone 3-7003, home phone Oak Ridge 483-8801.

Ride wanted from Lenoir City to Central Portal, straight day. Peggy May, home phone Lenoir City 986-5902.

Three riders wanted from South Clinton, Claxton, Edgemoor to East, Central or North Portal, straight day. O. B. Harness, plant phone 3-7733 (ask for Hatcher); home phone Clinton 457-3402.

Ride wanted or will join car pool from South Knoxville area, to West Portal, straight day. Frank Horton, plant phone 3-5835, home phone Knoxville 577-1017.





CONTEMPLATION By Stan Leibo

Y-12ers, Biology Lensmen, Win Camera Club's 'Open' Competition

Winners in the Carbide Camera Club's "open" competition were Stan Leibo and Paul Swenson, both of Biology, who placed in black and white prints. Bill Harper, Y-12's Development, and Peggy Turner, Biology, took prizes in color prints; and Fred de Serres, Biology, and Don Rucker, ORNL, won color slides competition.

Camera Club members will get tips in print-making techniques from an illustrated Pictorial In-

struction Exhibit" at the club's August meeting, Tuesday, August 12, at 8 p.m. An exhibit of 20 successful salon prints will be featured.

The club's August competition is "Water." A. A. Abbatiello, club president, says, "This means a photograph of either one drop of water or the entire Pacific Ocean." (Editor's Note: That should cover the water-front, shouldn't it? Ouch!)

Fabrication Wins Challenge Golf Meet

Mid-July saw another Y-12 Challenge Trophy golf award! The annual event took place Saturday, July 12 at Melton Hill Country Club.

The Fabrication Division compensated for last year's loss to the Product Engineering and Scheduling outfit by recording an average handicap score of 75.8, while PE & S averaged 76.9. Newt Hamby won six golf balls with a low scratch score of 71 . . . and a 64 handicap tally.

About 50 persons participated in the match and the dinner which followed. The trophy is residing in Harwell Smith's office (superintendent of the Fabrication Division) until some other division sees fit to challenge the entire group and wrest it away by lower golf scores.

Laser Reflector Was Union Carbide-Made

One of the experiments on the surface of the moon tried by the astronauts was the setting up of a laser reflector. The purpose of this will be to reflect a laser beam back to earth—the origin of the beam being California. The laser experiment is to determine the exact distance to the moon, and to record miniature oscillations (wobbles) of the moon's orbit. The laser was produced by the Korad Division of Union Carbide Corporation.

Gallman Son Is Honor UT Grad!



Richard Gallman

Graduating this June with honors was Richard Gallman, son of Mr. and Mrs. Sam Gallman, 111 South Hollywood Circle, Oak Ridge.

Rick took his BS degree in Physics June 10. While at UT he was a member of Phi Kappa Phi and Sigma Pi Sigma honor societies.

Young Gallman is employed in Y-12's Laboratory Development. The proud father is in the Gage Certification Laboratory.

If you feel rich, you are.



Another month dawns . . . August . . . also named for Caesar. Ave! Hail also to more Y-12ers marking important dates with Union Carbide Corporation.

25 YEARS

Arthur A. Pierce, Guard Department, August 4.

Allie A. Baer, Chemical Services, August 7.

Archie P. Hooker, Research Services, August 8.

Charles R. Lively, Guard Department, August 8.

William T. Bradshaw, Buildings, Grounds and Maintenance Shops, August 10.

Mattie B. May, Chemical Services, August 10.

Morris Bailis, Research Services, August 11.

20 YEARS

Edgar Collier, General Expediting and Auxiliary Services, August 9.

15 YEARS

Kenneth E. Tilley, Machine Maintenance, August 6.

Theodore R. Keirn, Process Maintenance, August 9.

Billie E. Rowland, Dimensional Inspection, August 9.

Lawrence G. Losh, Physical Testing, August 9.

J. V. Cheek, Chemical Services, August 10.

Carlos E. Tilley, Assembly Operations, August 10.

Paul Peterson, Alpha Five Processing, August 10.

10 YEARS

William D. Stinnett, Special Production Scheduling and Coordination, August 7.

James M. Kendrick, Accounting and Budget, August 10.

James H. Moore, Beta Four Heavy Machine Shop, August 10.

Space Films Are Available At AEC

With public interest high in space exploration following the success of Apollo 11, the Atomic Energy Commission is offering for free loan three new motion pictures on nuclear energy in space.

They are "The Weather Eye" produced by the AEC; "The Atom and the Man on the Moon," produced by General Electric Company for the AEC; and "Nuclear Propulsion in Space," produced by the National Aeronautics and Space Administration.

"The Weather Eye," a 13-minute film, is the story of the designing, development and fabrication of SNAP-19 is a small, long-lived, radioisotope-fueled nuclear generator designed to produce electrical power aboard a Nimbus weather satellite more than 600 miles above the earth.

"The Atom and the Man on the Moon," which also runs 13 minutes, describes SNAP-27, a highly-reliable nuclear generator that will power a small scientific laboratory to be left on the surface of the moon to transmit data back to earth for several years.

"Nuclear Propulsion in Space," a 21-minute production, compares the heavy, conventional chemical rockets of today with the nuclear powered ones of tomorrow. The film explains how a nuclear rocket engine works and traces the growth of the research and development programs.

These and other films on nuclear energy can be borrowed free of charge, except for return postage, from the Atomic Energy Commission's Film Library.



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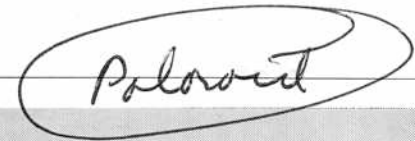
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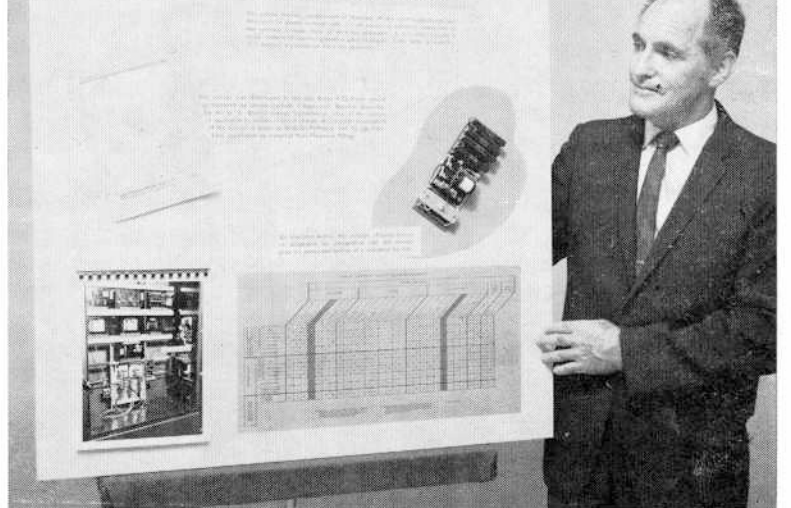
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A VOLTAGE SENSING DEVICE FOR MONITORING X-RAYS



E. W. PIPES, ELECTRICAL and Electronics, displays an exhibit which he will present at the Eighth International Congress of Crystallography at Adelphi University, Garden City, New York, August 13-21. The display explains the use of the voltage sensor developed by Pipes as a fail-safe monitor on X-rays and related equipment. The display was prepared by Technical Information Services Department.

Y-12ers Author Journal Article



Harding

Gentry

The June issue of Industrial Engineering contained an article authored by three Y-12ers . . . John Harding, David Gentry, Jerry Parker, all in the Maintenance Division.

The article was entitled "Job Shop Scheduling Against Due Dates," and described how our plant improved scheduling of a number of single - operation electrical and electronic jobs.

A study showed that an effective sequencing rule for scheduling should contain the following factors:

1. Some function of job due date in order to pace the progress of individual jobs and reduce the variance of the lateness distribution.
2. Consideration of processing time in order to reduce congestion and get jobs through the shop as quickly as possible.
3. Some foresight which would help avoid selecting a job from one queue, completing the work required, and then moving it into another queue which is already congested.

A single algebraic scheduling

Moon Rocket Weight Was More Than Half Union Carbide Fuel

The three-stage Saturn V rocket that carried man to the moon recently required 434,000 gallons of Liquid Oxygen. The Linde Division of Union Carbide Corporation supplied the entire amount for the Apollo XI flight. The weight just prior to liftoff of the LOX is approximately 4,113,000 pounds—equal to 67 per cent of the entire weight of the rocket and spacecraft. The Linde LOX is produced in the air separation plant at Mims, Florida, across the river from Cape Kennedy.

In addition, the Linde Division produced and supplied the liquid nitrogen used in preparation of the flight . . . to pressurize fuels for transfer, to purge the Saturn V systems, and to blanket critical components at launch time. The nitrogen was also produced at the Mims plant.

rule was arrived at, whereby jobs were scheduled in the shops.

Harding is president of the East Tennessee Chapter of American Institute of Industrial Engineers . . . and is their representative to the National Nuclear Congress. He received a civil engineering degree from the University of Cincinnati, and is a registered professional engineer. Gentry and Parker both earned BS degrees in industrial engineering from the University of Tennessee and are working towards MS degrees.

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